

Abstract of the Disclosure

A device and method for delivering and injecting fluid into heart tissue utilizing a laterally directed needle to increase injectate (fluid) retention in the heart tissue. The device may comprise a catheter having a shaft wherein the distal end of the shaft includes  
5 a primary penetrating member and a secondary penetrating member. The secondary penetrating member includes an injection lumen in fluid communication with a pressurized fluid source. The primary penetrating member penetrates the heart tissue at the injection site in a first direction, and the secondary penetrating member penetrates the heart tissue in a second direction different from the first direction such that fluid leakage  
10 from the injection site is reduced and the volume of treated tissue is increased.

CERTIFICATE UNDER 37 CFR 110: The undersigned hereby certifies that this paper or papers, as described hereinabove, are being deposited in the United States Postal Service, "Express Mail Post Office to Addressee" having an Express Mail Mailing label number of:

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on this 8th day of December 19 99  
Crompton, Seager & Tufts, LLC

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